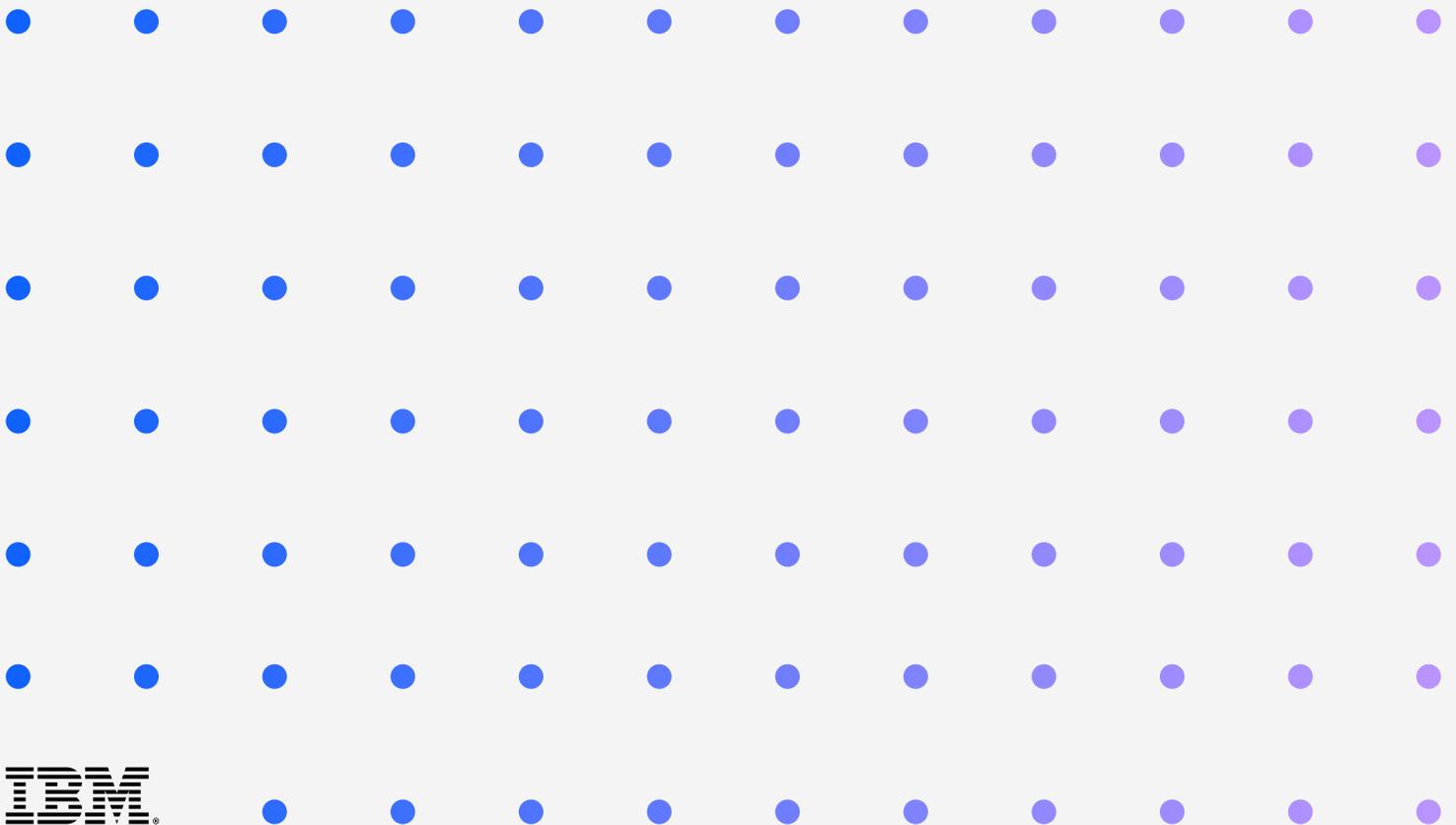




# IBM Global AI Adoption Index 2022

New research commissioned by IBM  
in partnership with Morning Consult



# Introduction

Around the world, the adoption of artificial intelligence (AI) and its impact on businesses and society stands at a turning point. The global AI adoption rate grew steadily and now is 35%, a four-point increase from the year before. And in some industries and countries, the use of AI is practically ubiquitous. AI is rapidly providing new benefits and efficiencies to organizations around the world through new automation capabilities, greater ease of use and accessibility, and a wider variety of well-established use cases. AI is both being applied through off-the-shelf solutions like virtual assistants and embedded in existing business operations like IT processes. Bolstering evidence about the importance of accessibility, 44% of organizations are working to embed AI into current applications and processes.

That's the fundamental takeaway from the latest IBM Global AI Adoption Index. While progress has been made, there's still work to be done by enterprises to ensure that consumers welcome the benefits of AI by instilling trust and guaranteeing AI is acting responsibly. For example, a majority of organizations that have adopted AI haven't taken key steps to ensure their AI is trustworthy and responsible, such as reducing unintended bias.

At the same time, companies are also applying AI to more far-reaching challenges with greater social and environmental impact, for example by addressing skills or labor shortages or helping to advance environmental, social and governance (ESG)-related initiatives and reducing their environmental impact. Two-thirds of companies are already or are planning to apply AI to their sustainability-related goals.

For the third year in a row, the IBM Global AI Adoption Index provides insights into overall AI adoption around the globe, the barriers and challenges that are hindering AI from reaching its potential, and the use cases, industries and countries where AI is most likely to thrive. It offers a playbook for 42% of companies that report exploring the use of AI today, and a window into the AI trends and challenges that are likely to come.

The data, commissioned by IBM, sheds new light on the deployment of AI across 7,502 businesses around the world: 500 in each country, United States, China, India, UAE, South Korea, Australia, Singapore, Canada, UK, Italy, Spain, France and Germany; and 1,000 in Latin America—Brazil, Mexico, Colombia, Argentina, Chile and Peru. The polling was conducted online through Morning Consult's proprietary network of online providers from 30 March through 12 April 2022. See full details on the methodology at the end of the summary.

## Top takeaways



### Automation and skills

AI is helping address the talent and skill shortages by automating repetitive tasks.



### Building trust

Trust is a priority, but many organizations haven't taken steps to ensure AI is trustworthy.



### Making business sustainable

Companies around the world are ready to invest in AI to address their sustainability goals.

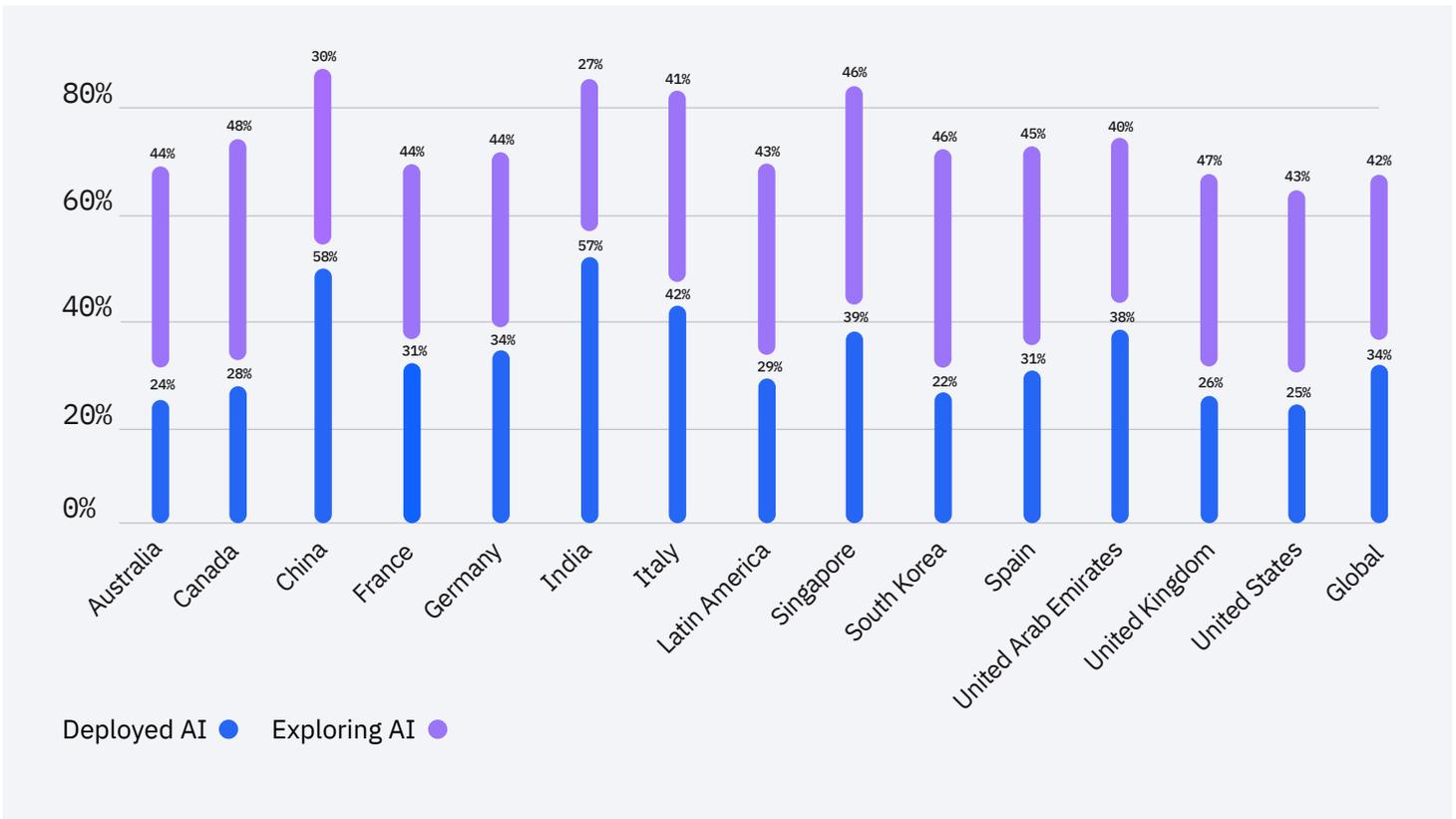
## Key findings

Global AI adoption is growing steadily.

- **AI adoption and strategy:** Today, 35% of companies reported using AI in their business, and an additional 42% reported they are exploring AI. AI adoption is growing steadily, up four points from 2021.
- **Augmenting the workforce:** AI is helping companies address labor and skills shortage by automating repetitive tasks. 30% of global IT professionals say employees at their organization are already saving time with new AI and automation software and tools.
- **Sustainability:** Two-thirds (66%) of companies are either currently executing or planning to apply AI to address their sustainability goals.
- **Use cases:** Around half of organizations are seeing benefits from using AI to automate IT, business or network processes, including cost savings and efficiencies (54%), improvements in IT or network performance (53%), and better experiences for customers (48%).

At the same time, important challenges remain:

- **Barriers to AI adoption:** The top five things that are hindering successful AI adoption for businesses are limited AI skills, expertise or knowledge (34%), the price is too high (29%), lack of tools or platforms to develop models (25%), projects are too complex or difficult to integrate and scale (24%), and too much data complexity (24%).
- **Trustworthy AI:** A majority organizations haven't taken key steps to ensure their AI is trustworthy and responsible, such as reducing bias (74%), tracking performance variations and model drift (68%), and making sure they can explain AI-powered decisions (61%).



AI adoption rates around the world

13%

Compared with 2021, organizations are more likely to have adopted AI in 2022.

## AI adoption and strategy

AI adoption continued at a stable pace in 2022, with more than a third of companies (35%) reporting the use of AI in their business, a four-point increase from 2021. A major driver of adoption was accessibility that made AI easier to implement across the organization, though companies are also looking to AI to help them increase automation of tasks and reduce costs. The gap in AI adoption between larger and smaller companies also grew significantly. Larger companies are now 100% more likely than smaller companies to have deployed AI in their organization, compared with only 69% in 2021.

AI adoption differs across companies, geographies and industries. While larger companies are twice as likely to have actively deployed AI as a part of their business operations, smaller companies are more likely to be exploring or not pursuing AI at all. Chinese and Indian companies are leading the way, with nearly 60% of IT professionals in those countries saying their organization already actively uses AI, a dramatically higher rate of adoption than in markets like South Korea (22%), Australia (24%) US (25%) and the UK (26%). Industry disparities are also significant, with companies in the automotive and financial services industries far more likely to be deploying or accelerating their rollout of AI than their peers.

AI adoption continues to quicken, with more than half (53%) of IT professionals saying they have accelerated their rollout of AI over the last 24 months. This rate is significantly higher than in 2021, when only 43% of companies said their organizations were accelerating their AI rollout as part of their response to COVID-19.

Survey data shows which geographies and sectors are accelerating their rollout of AI the most:

China	84%	
	67%	Automotive industry
Latin America	66%	
India	62%	
	60%	Larger companies
Italy	57%	
Singapore	57%	
Spain	56%	
United Arab Emirates	55%	
	54%	Financial services
Global average	53%	

# 1 in 4

companies are adopting AI because of labor or skills shortages.

# 1 in 5

companies are adopting AI because of environmental pressures.

A major explanation for why AI adoption up to this point has been gradual is the need to implement a strategy that can successfully operationalize and apply AI to business goals. Today, many organizations that haven't yet embraced AI are working to develop the right strategies to help them do so, particularly smaller companies who have been much slower to adopt AI. Larger companies are 60% more likely than smaller companies to have a holistic strategy for how they will use AI across their organization. Many smaller companies (41%) are now developing AI strategies.

37%	Are developing an AI strategy
28%	Have a holistic strategy in place
25%	Have a strategy that's focused only on limited or specific use cases

Across countries, most IT professionals at organizations exploring or deploying AI report that their company is developing or already has AI strategies in place. However, professionals in India and China are most likely to say their companies' AI strategies are holistic across the organization.

What are the top ten factors driving AI adoption?

43%	Advancements in AI that make it more accessible
42%	Need to reduce costs and automate key processes
37%	Increasing amount of AI embedded into standard off-the-shelf business applications
31%	Competitive pressure
31%	Demands due to the COVID-19 pandemic
25%	Pressure from consumers
23%	Directives from leadership
22%	Company culture
22%	Labor or skills shortages
20%	Environmental pressures

The need to reduce costs and automate key processes drives AI adoption in most markets globally.

AI technology continues to advance year-over-year as AI tools become more specifically tailored to business, easier to use, and as AI skills generally continue to become more prevalent. Compared to AI projects two to three years ago, the most important changes companies cite are that AI solutions are better designed to fit the needs of businesses (45%), they are more accessible and easier to deploy (41%), and data and AI skills are more prevalent (38%).

How are companies planning to invest in AI over the next 12 months?

44%	Research and development
42%	Embedding AI into current applications and processes
39%	Reskilling and workforce development
32%	Building proprietary solutions
28%	Off-the-shelf AI solutions
26%	Off-the-shelf tools to build their own applications and models

Larger companies are more likely to embed AI into current applications and processes while smaller companies are most likely to invest in research and development over the next 12 months.

Many companies that are interested in AI have also realized that they didn't have the right cloud and data infrastructure to do so, and is one possible explanation why the gap in AI adoption between larger and smaller companies has grown. For example, companies exploring AI are more likely to report their company is using a private cloud environment, while companies currently deploying AI are more likely to report their company is using a mix of data and cloud environments that allow them to access their data and run their models wherever they need to.

What cloud environments are companies currently using?

43%	Private cloud
32%	Hybrid cloud or multcloud
13%	Public cloud
8%	On premises

Larger companies are 70% more likely to be using a hybrid cloud or multcloud environment than smaller companies, and companies that have deployed AI are 59% more likely to be using a hybrid cloud or multcloud environment than those that have not.

Globally there's greater inconsistency and variance in data and cloud environments than in most of the other metrics in the survey. A slight plurality of global IT professionals uses a private cloud, but IT professionals in China, Germany, India and Singapore report their company is using a mix, such as a hybrid cloud or multcloud environment. South Korean companies are more than twice as likely to use public cloud compared with anywhere else in the world (41% compared with ~10%–20% in other countries). There are large differences sometimes between neighboring countries, for example 41% of German companies use a mix of cloud services compared with only 23% of Italian companies.

When it comes to bridging AI and the cloud ecosystem, more than ever businesses want to build and run their AI wherever their data resides. Global IT professionals in 2022 are 8% more likely to think it's important to their company that they can build and run their AI projects wherever the data resides than in 2021.

Data management is hindering AI adoption.

# Almost 1 in 5

cite difficulties ensuring data security

cite difficulties ensuring data governance

cite difficulties managing disparate data sources and formats

cite difficulties integrating data across any cloud

IT professionals across most countries report that ensuring data security is the most difficult part of their organization's data management strategy.

Companies that haven't deployed AI are three times as likely to say that they have little to no confidence their company has the proper tools, further evidence that effective data management and AI deployment go hand in hand. One in five companies say they don't have the right tools in place to locate and use data across their business.

While many companies are still facing key data management issues, a majority of organizations are increasingly confident in their data management capabilities, with more than four in five IT professionals (84%) saying they are very or somewhat confident that their company has the right tools in place to locate and use data across their business.

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61% Companies are currently using a data fabric architecture or is considering using a data fabric architecture.

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+60% Larger companies are more likely to be using a data fabric architecture than smaller companies.

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+283% Companies that have deployed AI are more likely to be using a data fabric compared to those that have not.

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IT professionals in India (45%) and China (51%) are most likely to say that their organization is currently using some type of data fabric, an architectural approach to simplifying data access in an organization to make data accessible to those who need it, while IT professionals across most other countries report their company is considering using a data fabric architecture.

In addition to a more sophisticated cloud architecture, our survey also shows evidence that AI requires more complex data architecture. For example, companies that are using AI are significantly more likely to be using a data fabric architecture that allows them to access and surface accurate data wherever they need to. Indeed, to run their models and protect their data, companies that have deployed AI are 65% more likely to be using a mix of architectures, including databases, data lakes, data warehouses and data lakehouses, compared to those that have not.

How many different data sources are companies drawing from to inform their AI, business intelligence (BI) and analytics systems?

19%	Less than 20
21%	20–50
18%	51–100
13%	101–500
8%	501–1,000
5%	More than 1,000
17%	Don't know or not sure

IT professionals at smaller companies are three times as likely as those at large organizations to report having fewer than 20 different data sources informing their AI, BI and analytics systems. Across all countries, a majority of IT professionals report their company is drawing from over 20 different data sources to inform their AI, BI and analytics systems; companies in China and India are drawing from the widest array of sources.

Who needs access to company data to make better decisions?

Less than 10%	10%
10%–24%	24%
25%–49%	28%
50%–74%	22%
75%–99%	7%
100%	6%

Organizations currently deploying AI are more likely than organizations only exploring AI to require a higher percentage of their employees have access to company data. IT professionals in China, India and Singapore are more likely to report that a quarter or more of the workforce at their organization requires access to company data to make decisions.

## Skills

More than costs, lack of tools or project or data complexity, lack of skills remains the biggest barrier to AI adoption within organizations. IT professionals remain by far the most likely user group for AI within an organization, as companies look to AI operations to modernize and automate their IT infrastructure. At the same time, AI is also helping organizations address skills gaps, for example, by automating tasks for skilled workers so they can be more productive, or by using AI-assisted learning or employee engagement.

Who are the top ten user groups of AI at organizations today?

54%	IT professionals
35%	Data engineers
29%	Developers and data scientists
26%	Security professionals
25%	Customer service professionals
23%	Marketing professionals
21%	Product managers
21%	Sales professionals
21%	HR professionals
21%	Finance professionals

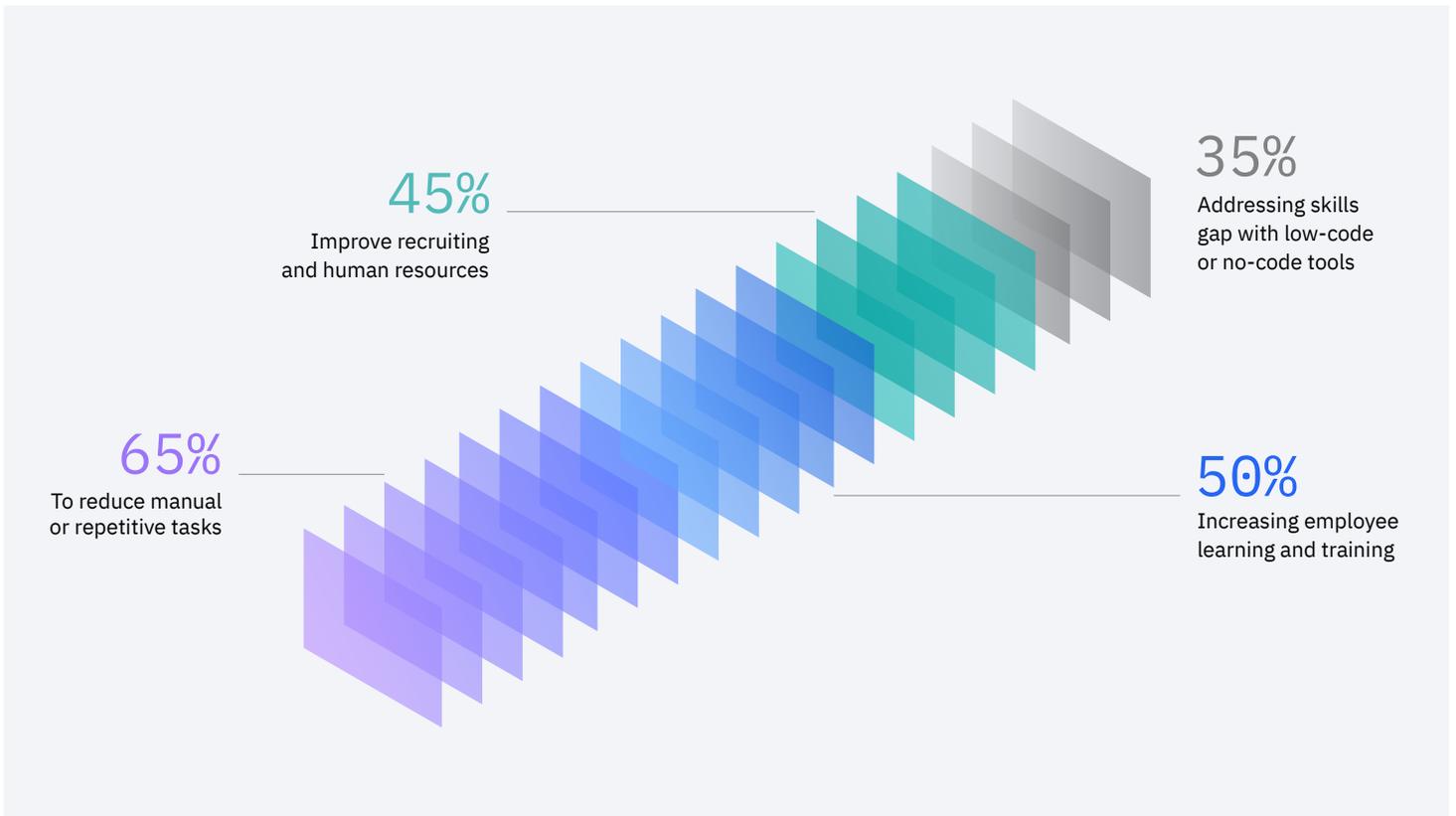
IT professionals in China are more likely than those in other countries to report that a variety of groups in different departments at their organization are currently utilizing AI.

Barriers to AI adoption remain persistent. The top five things that are hindering successful AI adoptions for businesses are:

34%	Limited AI skills, expertise or knowledge
29%	Price is too high
25%	Lack of tools or platforms to develop models
24%	Projects are too complex or difficult to integrate and scale
24%	Too much data complexity

Except for COVID-19, the factors driving—and hindering—AI adoption have been extremely consistent across all three editions of the IBM Global AI Adoption Index. Limited skills, high prices, and difficulty scaling or tackling complex projects have remained the key contributing factors to limited AI adoption. As these issues all negatively impact more than a quarter of businesses today, they remain a huge hurdle to widespread adoption.

One of the most important roles AI is playing within organizations is by helping them address the widespread skill and labor shortages that are affecting most industries around the world. Already, 30% of IT professionals say employees at their organization are saving time with new AI and automation software and tools, particularly in fields where skills shortages are common like IT. Companies are also increasingly looking to AI to help them improve their recruiting and retention policies, seek out more diverse workforces, and empower workers with better skills and training.



How organizations are using AI to address labor or skill shortages

19%

don't have employees with the right skills to use new AI and automation software and tools

22%

are tackling the tasks of open roles with new automation software and tools

30%

are saving employees time with new AI and automation software and tools

While lack of skills continues to hinder AI adoption, AI is also helping provide the solution. Today, more than one in three (35%) organizations say they are training and reskilling employees to work with new AI and automation software and tools. It's particularly true at larger companies, that are more likely to report their organizations are training employees, saving time and excited to work with new AI tools. Globally, IT professionals in China, India, Singapore and the UAE are more likely to say their organization is training employees to work together with new AI and automation software and tools. Finally, heavy industries are the most likely to embrace automation, with the automotive industry; the chemical, oils and gas industry; and the aerospace and defense industry reporting that their organization is training employees to work with new AI automation technology at the highest rates.

# Trustworthy AI

As AI continues to have a greater impact on companies and society, it's also becoming increasingly important to begin taking the issue of consumer trust more seriously. Companies that are deploying AI are increasingly likely to acknowledge the importance of trust with 84% of IT professionals now saying that being able to explain how their AI arrives at different decisions is important to their business. At the same time, a large majority of organizations that are using or are planning to use AI have not taken some critical steps to preserve consumer trust in the long term, for example, establishing protocols for identifying and eliminating bias.

Trustworthy, responsible AI practices and AI maturity go hand in hand, and 85% of IT professionals agree that consumers are more likely to choose a company that's transparent about how its AI models are built, managed and used. Additionally, the more likely a company is to have deployed AI, the more likely it is to value the importance of trustworthiness. IT professionals at businesses currently deploying AI are 17% more likely to report that their business values AI explainability than those that are simply exploring AI.

Organizations' priorities, as they advance trustworthy AI, are also shifting. While most IT professionals in 2021 and 2022 still say being able to explain how their AI arrived at a decision is important to their business, the proportion shrank three percentage points compared to 2021. While this decrease on its own may not appear to be a major shift, other findings suggest a gap remains between leaders' intention and meaningful actions.

Lastly, consumer drive for trustworthy AI isn't felt the same globally. While more than two-thirds of IT professionals in India and Latin America strongly agree that consumers are more likely to choose services from companies offering transparency and an ethical framework on how data and AI models are built, managed and used, that number falls to one-third or below in markets like France (33%), Germany (29%) and South Korea (21%).

## 4 in 5

cite being able to explain how their AI arrived at a decision as important to their business

What aspects of trust and explainability are most important to businesses?

56%	Maintaining the integrity of their brand and the trust of their customers
50%	Meeting external regulatory and compliance obligations
48%	Having the ability to govern data and AI across the entire lifecycle
48%	Having the ability to monitor data and AI across the lifecycle
45%	Meeting internal reporting obligations
43%	Ensuring applications and services minimize bias

Most companies appreciate the critical importance of instilling consumer trust in the way an organization's AI is developed and used, but relatively few companies codified these principles into official rules and policies. A significant challenge is that the field of applied AI ethics is still relatively new, and most companies cite a lack of skills and training. Nearly two in three companies say they lack the skills and training to develop and manage trustworthy AI.

74%

Not reducing unintended bias

68%

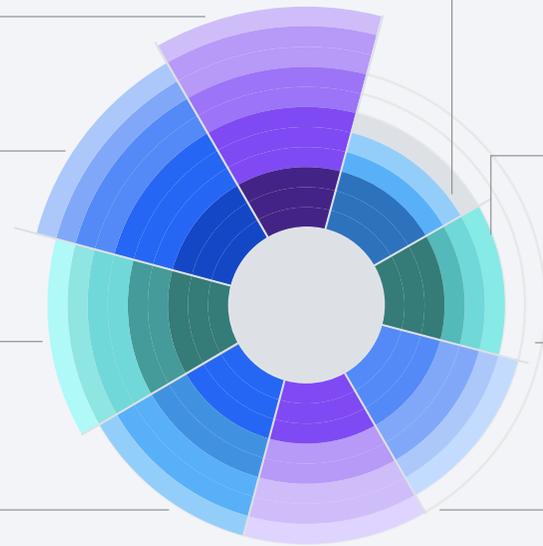
Not tracking performance variations and model drift

61%

Not making sure they can explain AI-powered decisions

60%

Not developing ethical AI policies



52%

Not safeguarding data privacy through the entire lifecycle

55%

Not monitoring AI across cloud and AI environments

59%

Not guarding against adversarial threats and potential incursions to keep systems healthy

60%

Not tracking data provenance, changes in data and model versions

A majority of organizations haven't taken key steps towards trustworthy AI.

Companies face pervasive barriers when it comes to developing AI that's explainable and trustworthy.

63%	Lack of skills and training to develop and manage trustworthy AI
60%	AI governance and management tools that don't work across all data environments
59%	Lack of an AI strategy
57%	AI outcomes that aren't explainable
57%	Lack of company guidelines for developing trustworthy, ethical AI
57%	AI vendors who don't include explainability features
56%	Lack of regulatory guidance from governments or industry
56%	Building models on data that has inherent bias (social, economic, and so on)

These barriers are down 2%–3% compared to 2021. Compared to other industries, IT professionals in government and healthcare currently exploring or deploying AI are more likely to identify barriers to explainability and trust.

Where are companies focusing their energy as they act to make AI more trustworthy? Across most countries, IT professionals most commonly cite safeguarding data privacy as the step they are taking to ensure their AI is trustworthy and responsible. Chinese professionals most often cite monitoring AI across cloud and AI environments; professionals in France are most often guarding against adversarial threats.

# Sustainability

For the first time in 2022, the IBM Global AI Adoption Index polled companies on the use of AI in their sustainability initiatives and found that AI is poised to play a growing role. Very few IT professionals don't see sustainability as important to their business—6% of large companies and 9% of smaller companies—and, of the companies that are deploying AI, a large majority are applying AI to sustainability-related challenges.

Which ESG or sustainability challenges do respondents think AI has the greatest potential to help solve?

37%	Driving more efficient business processes and daily operations
33%	Providing more accurate and verifiable data on environmental performance factors for reporting purposes (emissions, waste, and so on.)
29%	Automating the collection and reporting of data across complex operations and endpoints
29%	Analyzing and deriving insights from vast amounts of data related to desired sustainability outcomes
28%	Meeting regulatory and compliance requirements
26%	Increasing supply chain transparency towards more responsible sourcing and labor practices
20%	Supporting corporate DEI goals, for example, AI-enabled recruiting practices

Of those companies already using AI today, 64% are currently applying AI to accelerate their ESG initiatives and another 17% have plans to do so. Even among organizations who say they are still exploring AI, many of them are also applying AI in some way, likely in limited or trial capacities. More than one in three (36%) say their business is investing in sustainability-related AI.

There's evidence US companies lag the world in applying AI to environmental challenges. While 87% of US organizations say they have ESG initiatives, 22% say that AI plays no role, the largest proportion in the world. In contrast, 70% of Chinese organizations are using AI to advance their ESG initiatives. Looking at key sectors, 55% of IT professionals in the automotive industry are at companies currently applying AI to accelerate their ESG initiatives.

Across most markets, AI is viewed as having the greatest potential to solve sustainability challenges related to business process efficiency and data accuracy, for example, by automating the collection and maintenance of climate-related data. In 2022, a third of companies said they are using AI to drive more efficient business processes and operations.

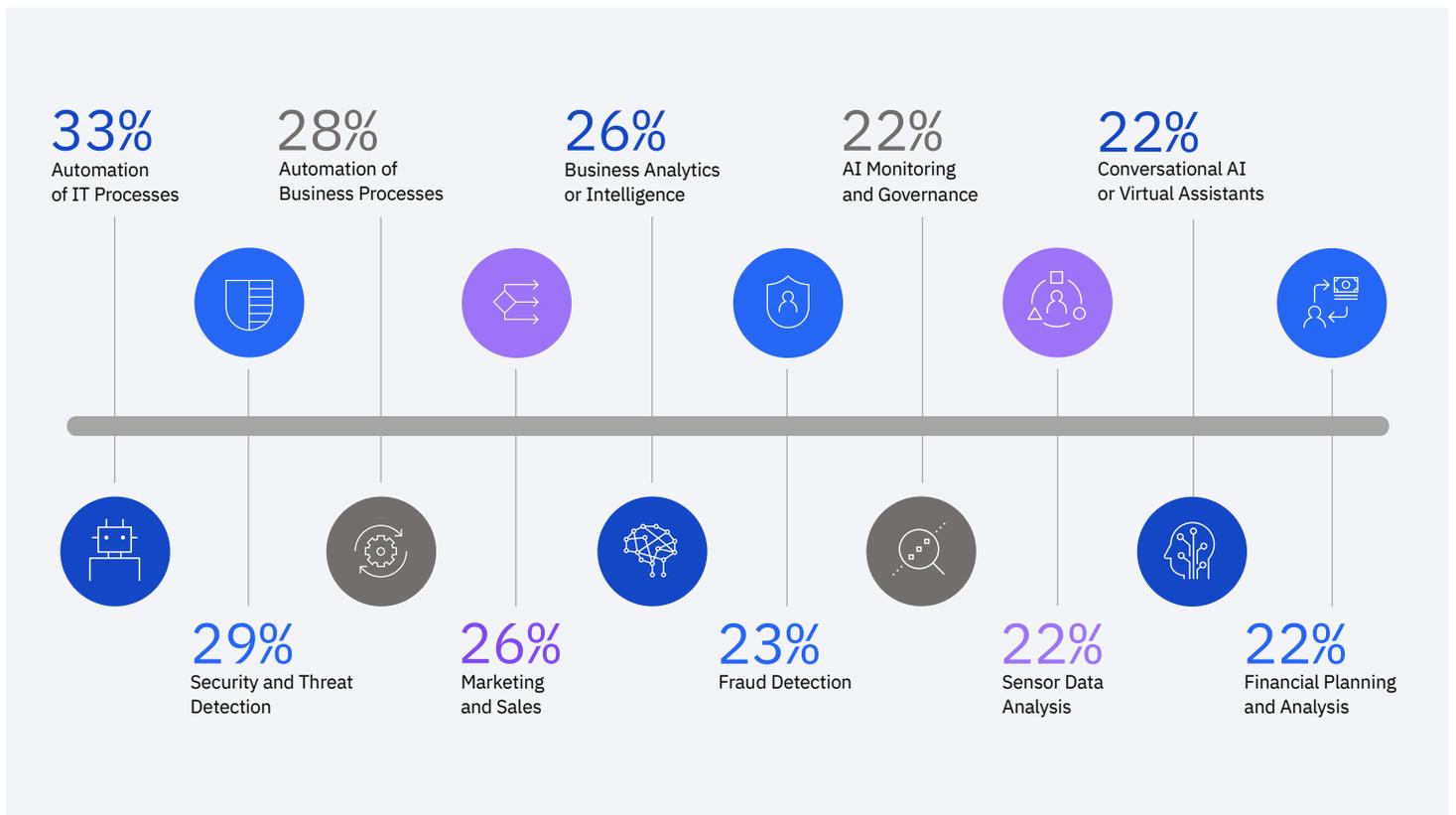
While companies in every industry are increasing their focus on AI for sustainability, due to the diversity of the challenges they face, they are applying AI in a large variety of different ways. Companies across the board are looking to AI to reduce costs and consumption, manage reporting, and streamline their operations, but organizations in certain industries are using it for supply chain optimization (42%), predictive maintenance (33%) and climate modeling (30%).

## 2 in 3

companies are currently or planning to apply AI to address their sustainability goals.



IT professionals at companies that use AI today for environmental risk analysis and sustainability are using AI in these ways.



How organizations are using AI today

## Use cases

Organizations are applying AI in a wide variety of use cases today, with the most advanced adoption happening in areas like IT operations, security and threat detection and business process automation. Today, a third of companies are already using AI to automate their IT processes—AIOps—which helps them preserve application performance while also making resource allocation more efficient. Businesses are also applying AI techniques like natural language processing (NLP) to fields like marketing, sales and customer care.

A large proportion of companies interested in or deploying AI are looking to automate but what, exactly, they are trying to automate varies from sector to sector. Nearly half of companies that have applied AI-based automation have done so to drive greater IT efficiency, but they are also using automation to give time back to employees (49%) and address skills gaps. There are also large regional disparities with certain techniques like robotic process automation (RPA). For example, Chinese companies are nearly twice as likely to employ RPA as US firms.

Around 40% of larger companies are using AI to improve customer service agent productivity, create a more personalized experience for customers and employees, and streamline how customers and employees find information and resolve frequently asked questions.

Only 2% of Chinese companies aren't using AI in customer care, with the most common reasons being improved customer service agent productivity (61%), streamlining how employees and customers find information (55%) and personalization (54%). English-speaking countries—the US, the UK, Australia and Canada—are much more likely to say they aren't using AI for customer care (14%–18%).

50% of IT professionals in the automotive industry say their organization uses AI to create a more personalized experience for customers and employees. That's a fairly large outlier, though 40% of companies in the chemicals, oil and gas sector, and 40% of companies in the utility and environmental sector are using AI to advance personalization, as well.

Why are organizations turning to automation software or tools?

46%	Drive greater efficiencies in IT operations
46%	Drive business operations and tasks
45%	Cost savings
39%	Give time back to employees so they can focus on higher-value work
30%	Get ahead of potential downtime or technical issues
27%	Address the skills gap

A majority of IT professionals at large companies are using it to drive efficiencies in IT operations (ITOps) (54%) compared to just 40% at smaller ones.

IT professionals in most markets say that their business is using or considering using automation to drive greater efficiencies in business processes and tasks and ITOps, but IT professionals in Australia, Canada, France, the UK and the US are more likely to cite cost savings as the reason.

What types of automation software or tools are organizations very or somewhat interested in using?

80%	Integration of apps and data
78%	Network performance management
76%	Business process management (BPM)
73%	AI for IT operations (AIOps)
73%	Application performance management (APM)
74%	Application resource management (ARM)
72%	Process and task mining
72%	Observability
65%	RPA

# 1 in 3

using AI for the automation of IT processes (AIOps)

using AI for automating IT or software asset management

US firms are the least likely in the world to be using RPA—49% in the US versus 89% in China, 83% in India, 73% in UAE and 72% in Latin America.

What use cases are companies using or considering using automation capabilities for?

37%	Automating IT operations
32%	Automating IT or software asset management
29%	Activity monitoring
28%	Automating customer care experiences
27%	Automating business workflows
26%	Real-time inventory management
25%	5G services
24%	Supply chain efficiency and resiliency
21%	Digital worker
19%	Networking or network slicing
18%	Environmental and sustainability performance
18%	Smart meters monitoring and control
18%	Asset utilization
17%	Transportation optimization
15%	ESG reporting
15%	Physical structure monitoring
14%	Wearables for training and site maintenance
13%	AI governance
13%	Sensor-based manufacturing
11%	Autonomous vehicles and drones
10%	Weather and climate risks

What benefits are organizations gaining from using AI to automate IT, business or network processes?

54%	Cost savings and efficiencies
53%	Improvements in IT or network performance
48%	Better experiences for our customers
46%	Employees are freed to focus on higher value
41%	Delivering and scaling new services more quickly
39%	Mitigating labor and skills shortages
33%	Reduction in outages
28%	Reduction in data center emissions

IT professionals at larger companies are most likely to see improvements in IT or network performance as the biggest benefit to using AI for process improvements, while IT professionals at smaller companies find cost savings and efficiencies to be the greatest benefit.

Compared to other industries, IT professionals in the automotive industry were more likely to report a variety of benefits from AI process automation, including mitigating labor and skills shortages in IT departments, improving customer experiences, and improvements in network performance.

Natural language processing (NLP), AI that understands and respond to text or voice data in much the same way humans do, is one form of AI that's being applied in a particularly large array of settings. While the most common application for NLP is in customer care, companies that have deployed NLP have done so in numerous fields, ranging from security and business development to sales, finance and market research. In short, the industry has come a long way from the chatbot.

How are companies using or considering using NLP solutions?

38%	Customer care
36%	Security
32%	Business development
30%	Sales
29%	Marketing
28%	Human resources or employee services
26%	Finance
25%	Supply chain or procurement
23%	Market research
20%	Corporate governance or ESG
18%	Legal or compliance

IT professionals at larger companies are more likely to use NLP solutions for security (42%), customer care (39%) and business development (37%). Across most industries, IT professionals are most likely to report their company is using or considering using NLP for security, customer care or sales.

IT professionals in China are much more likely to say their company is using NLP, with 56% saying their organizations use it for supply chain or procurement. Chinese IT professionals are almost three times as likely as US professionals to say their organizations use NLP for this purpose (19%). 52% of Chinese IT professionals use NLP for business development and 50% for HR or employee services.

NLP capabilities are perceived as expensive, with more than half of IT professionals (54%) reporting cost as a large or medium barrier. Costs are cited as the chief barrier to NLP adoption around the world, but it's more acute in Western Europe—60% in France, 58% in Spain—and South Korea (66%) than in China (45%) or the US (43%).

How are organizations using AI to improve customer and employee care?

36%	Improve customer service agent productivity
35%	Create more personalized experiences
34%	Streamline how customers and employees use it to find information
31%	Survey or feedback analysis
28%	Decrease call wait times
26%	More targeted or personalized advertising
25%	Email or text classification
25%	Identify new revenue streams or cross-sell or upsell opportunities
24%	Manage increasing call center volume
23%	Address labor or staffing shortages (for example, in contact centers)
16%	Sentiment analysis

## Methodology

The polling was conducted online through Morning Consult's proprietary network of online providers in April 2022. All respondents were required to have significant insight or input into their firm's IT decision-making.

### Representative sample of 7,502 business decision makers

- 500 in each country (United States, China, India, UAE, South Korea, Australia, Singapore, Canada, UK, Italy, Spain, France, Germany)
- 1,000 in Latin America (Brazil, Mexico, Colombia, Argentina, Chile, Peru)
- Conducted online through Morning Consult's proprietary network of online providers

### Respondents represented a mix of small and large firms

- 32% of respondents came from firms with more than 1,000 employees
- 27% of respondents came from firms with between 251 and 1,000 employees
- 20% came from firms with 51–250 employees
- 21% came from smaller businesses (50 employees or less)
- Sole proprietorships were not sampled

### Respondents represented a mix of seniority

- All respondents were required to have significant insight or input into their firm's IT decision-making.
- One-quarter of the sample was at a VP level or above, including C-suite executives.
- The remainder of the sample represented a mix of directors and senior manager-level employees with close knowledge or authority in their firm's IT and AI practices.

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